chamber resulting in fuel/air mixture;

igniting the fuel/air mixture in the combustion chamber resulting in heat energy;

passing the heat energy and any remainder of the compressed air through a turbine that includes the plurality of the turbine blades;

stopping the electricity provided to the stator when the rotor rotates at a first speed; and

generating electricity by rotating said at least one magnet positioned about the rotor coacting with the stator.

61. (Newly added) An electricity generating system comprising:

a turbine/alternator comprising a gas driven turbine and permanent magnet alternator on a common shaft and

an oil pump for supplying lubricant oil to said turbine/alternator, wherein said turbine/alternator is energized after oil pressure provided by said oil pump reaches a predetermined minimum value.

REMARKS

Claims 1-61 are pending in this application. Claims 1-18 previously existed and are carried over from United States Patent No. 6,314,717, while claims 19-61 are new. No claims have been cancelled.

Pursuant to 37 C.F.R. §1.173(c), each claim amendment must be accompanied by an explanation of the support in the disclosure of the patent for the Amendment and now such support will now be presented.

New claim 19 is directed to an electricity generating system having all of the elements in the first nine subparagraphs of issued claim 1, but further includes details of the combustion, including a fuel injector and a premix chamber. Support for these features is found

in column 8, lines 28-57, column 9, lines 1-65, column 14, lines 20-32 and Figures 11A, 11B and 13A-13D. This same text also provides support to claims 20-24 which depend from independent claim 19.

Claim 25 is directed to an electricity generating system having all of the elements in the first nine subparagraphs of issued claim 1 but, further, including details of the plurality of compressor blades longitudinally spaced by a ring receiving space from the plurality of turbine blades. Support for this may be found in column 2, lines 6-9; column 13, lines 1-4 and column 14, lines 43-column 15, line 21. Support for claim 26, which depends from independent claim 25 may also be found in this text.

Independent claim 27 is directed to an electricity generating system having all of the elements in the first nine subparagraphs of issued claim 1, but further including a heat exchanger having an exit stream passageway fluidly coupled to the turbine and to an exit port such that the gas exhaust passageway is in close proximity to the compressed air inlet passageway to heat the incoming air. Support for this claim is found in column 2, lines 9-13; column 4, lines 6-9 and column 13, lines 13-37 of the specification. Support for claims 28 and 29, which depend from independent claim 27, is also found in this text.

Independent claim 30 is directed to an electricity generating system having all of the elements in the first nine subparagraphs of issued claim 1, but further including a bearing receiving portion, wherein a center of mass of magnets associated with the rotor is offset relative to the center of mass of the stator to cause a preload on the bearing. Support for this claim is found in column 13, line 37-column 14, line 14. Support for claim 31, which is dependent upon independent claim 30 is also found in that text.

Claim 32 is directed to an electrical system for a turbine/alternator on a common shaft (see column 4, lines 64-column 5, line4 and column 13, lines 1-4) and means to provide

electrical power and means to output electric power from said permanent magnet turbine/alternator (see column 4, line 64- column 5, line 10). Claim 33, which depends from claim 32, states the fuel pump and oil pump of the gas driven turbine are driven by a single motor, as found in column 1, lines 67 – column 2, line1 of the specification.

Claim 34, which depends from independent claim 32, introduces a seal plate between the turbine engine and the compressor and text supporting this seal plate may be found in column 2, lines 6-9, column 13, lines 1-4, and column 14, lines 43-column 15, line 21.

Support for claim 35, which is dependent upon claim 32 and further comprises a means to modulate the output from the permanent magnet alternator and text supporting this may be found in column 4, lines 58-63 and column 11, lines 35-39.

Independent claim 36 is directed to a system having all of the elements in the first nine subparagraphs of issued claim 1, but further indicates the system is adapted to receive a liquid fuel as found in column 4, lines 18-20 of the specification.

Independent claim 37 is directed to an electricity generating system having all of the elements in the first nine subparagraphs of issued claim 1, but further indicating the system is adapted to receive gaseous fuel, as found in column 5, lines 39-42 of the specification.

Independent claim 38 is directed to an electricity generating system having all of the elements in the first nine subparagraphs of issued claim 1, but further including a fuel supply line in communication with the combustor and a purge valve associated with the fuel supply line. Support for these features may be found in column 4, lines 28-32 of the specification.

Independent claim 39 is directed to an electricity generating system having all of the elements in the first nine subparagraphs of issued claim 1, but further including a controller to monitor and control the turbine and compressor, wherein the controller is a microprocessor controlled engine controller, as stated in column 4, lines 58-60 of the specification.

Independent claim 40 is directed to an electricity generating system having all of the elements in the first nine subparagraphs of issued claim 1, but further including a cylindrical sleeve made of high temperature resistant polymer resin having carbon fibers, whereby the sleeve retains the magnet to withstand centrifugal force generated by high rotational speeds, as discussed in column 13, lines 4-12 of the specification.

Claim 41 is directed to an electricity generating system having all of the elements in the first nine subparagraphs of issued claim 1 and further including a fuel pump in fluid communication with the combustor (element of issued claim 11) and a means to modulate the fuel flow if the exhaust temperature exceeds a predetermined maximum temperature for a predetermined period, as discussed in column 4, lines 58-63 and column 11, lines 35-39 of the specification.

Independent claim 42 is directed to a method for operating an electricity generating system as discussed in column 2, lines 14-34 and column 15, line 42- column 16, line 18 of the specification.

Claim 43, which is dependent upon independent claim 42, further specifies the generator is used as a motor to start the system and is powered by either an AC or DC power source, wherein once upon achieving operating speed, the generator is converted to a generator mode, as discussed in this same portion of the specification.

Claims 44-47 are dependent upon claim 42 and each of the features found in claims 44-47 are found in column 9, lines 24-27 (dilution air); column 8, lines 40-48 (premix and rich premix) and column 8, lines 18-58 (premix conduit)

Claim 48 is a method claim dependent upon claim 42 further including the step of purging the fuel from the supply lines to the combustor upon shutdown to prevent fuel coking/clogging, as discussed in column 4, lines 28-32 of the specification.

Claim 49, which is dependent upon independent claim 42, further includes the step of measuring the temperature of the exhaust gas and utilizing this measurement to control the parameters affecting combustion, as discussed in column 4, lines 58-63.

Claim 50 which is dependent upon claim 42 further includes the step of controlling the amount of air entering into the secondary air supply to control emissions over a range of operating conditions to maintain a constant flame temperature, as discussed in column 7, line 65-column 8, line 2 and column 9, lines 66-67 and column 10, lines 1-46.

Claim 51 is dependent claim M1 and further specifies the step of rotating the rotor comprised of starting where the engine rotor is driven by battery power and while fuel is simultaneously supplied to the combustion chamber and the igniter is activated, as discussed in column 10, lines 47-49 of the specification.

Claim 52 depends from independent claim 42 and specifies the rotation of the rotor is increased by using a predetermined fuel flow based upon air inlet and exhaust gas temperatures, as discussed in column 4, lines 58-63 and column 16, lines 9-12 of the specification.

Claim 53 depends from claim 52 and further includes controlling electrical and chemical energy and based upon acceleration rates and exhaust gas temperature, as discussed in column 16, lines 9-12 and column 17, lines 3-7 of the specification.

Claim 54 depends from independent claim 42 and further includes the step for controlling the system parameters to maintain nominal rotor speed during 100% onload and offload conditions, as discussed in column 16, lines 24-26 and column 17, lines 3-22.

Claim 55 depends from independent claim 42 and specifies the step of rotating the rotor to start the system is comprised the step of driving the engine rotor by an external power

source where fuel is simultaneously supplied to the combustion chamber and the igniter is activated as discussed in column 2, lines 14-34 and column 15, line 42-column 15, line 18.

Independent claim 56 is directed to a method of controlling a turbine/alternator comprising providing electrical power to the turbine/alternator to start the turbine/alternator and outputting electric power from the turbine/alternator when self-sustained operation of the turbine/alternator is achieved, as discussed in column 2, lines 14-34 and column 15, line 42-column 16, line 18. Claim 57 depends from claim 58 and the same text supports that claim.

Claim 58 depends from independent claim M3 and further specifies that, when electricity is being generated, output of the permanent magnet alternator is modulated if the exhaust temperature exceeds a predetermined maximum temperature for a predetermined period, as discussed in column 4, lines 58-63 of the specification.

Independent claim 59 is directed to an electricity generating system having all of the elements in the first nine subparagraphs of issued claim 1 with the elimination of the fuel metering valve to provide a broader claim.

Claim 60 is directed to a method for operating an electricity generating system utilizing the elements provided in claim 59 and, as discussed in column 2, lines 14-39 of the specification.

Independent claim 61 is directed to an electricity generating system including a turbine/alternator comprising a gas driven turbine and permanent magnum alternator on a common shaft, an alternator arrangement and an oil pump for supplying lubricant oil to said turbine/alternator, wherein the turbine/alternator is energized after oil pressure provided by the oil pump reaches a predetermined minimum value, as discussed in column 15, lines 58-64 of the specification.

Examination of claims 19-61 and allowance of claims 1-61 is respectfully requested.

Respectfully submitted,

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